

Appendix

Comment on IDS materials

(1) Japanese Patent Application Laid-Open under No. 2000-283010

This document discloses that an engine start apparatus restarts the engine by the starter, in which the crankshaft is rotated in reverse direction, before the vehicle starts next time, to the crank angle stop position where the starting torque becomes smaller, when the starter is rotated in the normal direction during the stop control of the vehicle and the crank angle is at the crank angle stop position where the starting torque of the starter is large, in order to improve starting performance at the time of starting the engine. This document is discussed in the specification.

(2) Japanese Patent Application Laid-Open under No. 2002-4985

This document discloses that an engine start apparatus performs engine restart by supplying the fuel to a cylinder in an expansion stroke and by igniting the fuel in the cylinder at the time of starting the engine, without operating the starter. This document is discussed in the specification.